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Communication of Management Comments

Strothman+Co

Members of the Board and Management
Jefferson County Board of Education
Louisville, Kentucky

In planning and performing our audit of the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of Jefferson County Board of Education (the "District") as of and for the year ended June 30, 2015, in accordance with auditing standards generally accepted in the United States of America, we considered the District's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that would not be identified. However, as discussed below, we identified certain deficiencies in internal control that we consider to be significant deficiencies.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of the District's financial statements will not be prevented, or detected and corrected on a timely basis. We did not identify any deficiencies in internal control that we consider to be material weaknesses.

A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. We consider Finding 2015-1, noted on page 3, to be a significant deficiency. Other matters discussed on the following pages are opportunities for strengthening internal control over financial reporting and operating efficiency.

The District's written responses to the comments identified during our audit have not been subjected to the audit procedures applied in the audit of the financial statements and, accordingly, we express no opinion on them.

This communication is intended solely for the information and use of management, the Members of the Board, and others within the District, and the Kentucky Department of Education, and is not intended to be and should not be used by anyone other than these specified parties. We appreciate the opportunity to serve the District and are available at your convenience to answer questions or assist in the implementation of these suggestions.

Stothman And Company PSC

Louisville, Kentucky
November 6, 2015

Current Year Comments and Management Responses

JCBOE FY15 Audit

June 30, 2015

I.   <u>**Financial Reporting**</u>

Item 2015-1 – Proper Inclusion of Component Units

Condition & Criteria: Management believes the Jefferson County Public Education Foundation to be a component unit and it is not included in the District's financial statements.

Cause: The information necessary to properly include the Foundation has not been available by the date needed for inclusion.

Effect: This component unit is not included in the District's financial statements

Recommendation: We recommend that management engage and complete in a timely manner the audit of the component unit so that it can be properly included in the financial statements.

Management's Response: We continue to request this information, but we have no control over this entirely separate organization, which negotiated their audit fee partially based on flexibility of completion date. During the past few months, we have had very good discussions with the Foundation concerning this matter and other financial operations and believe this may be accomplished during the 2015-2016 school year.

II.   <u>**Accounts Payable**</u>

Item 2015-2 – Segregation of Duties

Condition & Criteria: An accounts payable clerk has the ability to set up and edit vendor information, including EFT information, as well as process invoices.

Cause: There are no controls in place that allow for proper segregation of duties.

Effect: The clerk could potentially enter fraudulent invoices for payment.

Recommendation: We recommend that segregation of duties be implemented as much as administratively possible. When not possible we recommend an alternate review, such as a vendor audit, be performed.

Management's Response: We continue to restrict the additional duties of the clerk assigned to vendor file maintenance; however, eliminating all conflicting duties would cause the position to be less than full-time. As compensating controls, we continue to perform reviews of her vendor file changes and her invoices processed throughout the year. Additionally, we have reviewed the lack of segregation of duties with Internal Audit to incorporate into their risk-based audit plan.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

III. <u>Capital Assets</u>

Item 2015-3 – Capital Assets Not Recorded When Acquired

Condition & Criteria: The objective of the Property Records Unit is to furnish and maintain an accurate inventory of capital assets for each cost center of the District. Property auditors are finding assets that are not accounted for.

Cause: Individual schools are failing to report to property auditors the acquisition of capital assets through school activity funds or by donation that would not be included on a Purchase Order.

Effect: All capital assets held are not properly recorded and tracked.

Recommendation: Schools should communicate to property auditors whenever they acquire potential capital assets that would not be included on a Purchase Order.

Management's Response: We have done extensive training both in person and in group settings, and the problem continues. We will continue to search for these unrecorded assets while enlisting the assistance of the Assistant Superintendents when we find locations that may need assistance understanding this requirement.

Item 2015-4 – Installation Costs Not Capitalized

Condition & Criteria: Installation costs of various capital assets are not being capitalized which is required for generally accepted accounting principles.

Cause: Property auditors are only capitalizing the actual cost of an asset including any installation costs or other costs in placing the asset into service.

Effect: Capital assets are not properly recorded and tracked at the complete acquisition cost.

Recommendation: All costs relating to placing an asset into service, including installation costs should be capitalized.

Management's Response: We have reviewed this matter with the Property Records Auditors, and they will record new assets at the entire cost of placing the asset into service.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Item 2015-5 – Schools Response to Capital Assets Inventory Count's Findings

Condition & Criteria: After inventory of capital assets is completed for a cost center, the cost center head will receive a copy of the findings. Based on District procedures, the cost center has two weeks to reply to this report and explain where missing capital assets are. In certain instances, capital assets marked as missing will remain in the system for a long period of time as the property auditors do not have the necessary supporting documentation to remove them from the inventory records.

Cause: Not all cost center heads reply to the property auditors regarding the missing capital assets report provided during the inventory counts.

Effect: Cost centers heads are not assuming their responsibility to account for missing capital assets, which can result in misappropriation of capital assets going undetected and overstatement of assets.

Recommendation: The District should ensure that cost center heads respond to the property auditor's missing audit report in a timely fashion by appointing some with higher authority to hold the cost center heads accountable for the missing capital assets.

Management's Response: We will enlist the help of the Assistant Superintendents when locations are not responsive.

Item 2015-6 – Improper Capitalization By Property Auditors

Condition & Criteria: When a project is substantially complete or additional work is done to an existing asset, fiscal manager of Facilities and Environmental Services Department, provides the property auditors with a Transmittal of Project Cost form that describes the pertinent information to determine the project, its cost, the date placed into service and whether it is an addition to an existing asset. Property auditor recorded the addition as a new asset during the year instead of just recording the capital improvement amount from the Transmittal of Project Cost form provided.

Cause: Property auditor lacks the familiarity with the District's processes for increasing the value of an existing asset when a capital improvement takes place during the year rather than creating a totally new asset.

Effect: Capital asset balances potentially being overstated by the amount of the capital asset recorded in prior years. There are sufficient controls in place to detect a large error prior to the issuance of financial statements; however, several smaller errors that as a whole may go undetected that could be material to the financial statements.

Recommendation: New employees of the property auditor's department need to be properly trained and supervised on recording new assets and/or additions to existing assets to minimize errors.

Management's Response: We believe this specific situation has been rectified and will ensure that future hires are better trained to understand the whole process.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

IV. <u>**Other Items**</u>

Item 2015-7 – Expense Budgeting

Condition & Criteria: Finance staff of the District prepare a budget for the year which is approved by the Board. One instance was found where the budget of a supplies expense was much larger than the actual expenses for the fiscal year. This has been the trend for this specific account over the last three years.

Cause: Historically, this account is budgeted high in anticipation of possible needs. The personnel in charge of creating the budget are not taking into consideration historical data.

Effect: By budgeting accounts too high, available funds are not being allocated to meet other needs of the District.

Recommendation: We recommend that budget preparers take into consideration the historical data and determine whether the amounts budgeted are reasonable in order to better prepare for the year and spend funds more efficiently.

Management's Response: We will follow up with the program director about better budgeting practices.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Item 2015-8 – Reporting of State and Local Grants

Condition & Criteria: Certain state and local grants received by the District during the fiscal year require the submission of quarterly reports. During our testing, we noted that the District was not in compliance with these reporting requirements for two grants tested.

Cause: Quarterly reports were submitted after the due date stipulated in the grant agreement.

Effect: The District could loss grant funds due to noncompliance with reporting requirements.

Recommendation: The District should ensure that reports are submitted on or prior to the due date specified in the grant agreement or obtain a waiver from the state or local government on the reporting requirement.

Management's Response: Grant reports were submitted past due date for two state grants while we waited for the state to send the new contract. Each year, these grants send a letter of award stating the amount we are to receive. We may not receive the actual contract until as late as October each year. The state will not accept reports for the new grants until the contracts are fully executed, which is beyond the report deadlines. We have continued to request assistance from the state with expediting this process. None of the late reports were a result of staff actions or inactions at the District.

Item 2015-9 – Collection of Tax Revenues

Condition & Criteria: Per KRS 160.500 - .510, the Sheriff or other property tax collector is not to deduct his fees from the taxes collected. Currently, the Sheriff is deducting his fee prior to remitting funds to the District.

Cause: Tax revenues are remitted daily by the Sheriff as a convenience to the District. The fees are only required to be remitted monthly. Because the taxes are remitted on a daily basis, the Sheriff withholds his fee from the remittance.

Effect: Non-compliance with Kentucky Revised Statues.

Recommendation: This issue should be discussed/negotiated between the District, KDE and the Sheriff's Office.

Management's Response: Our lobbying group is negotiating for a change in state law to permit what we believe is most efficient operationally.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Item 2015-10 – School Activity Funds

Condition & Criteria: Kentucky Department of Education requires all Kentucky schools to follow the Redbook in accounting for School Activity Funds. Currently, many schools are not properly following the policies/requirements of the Redbook when accounting for the various activities of the school.

Cause: Redbook policies/requirements were not followed by bookkeepers/principals in accounting for the various activities at the school in areas such as multiple receipt forms, ticket sales, invoice approval, and transfers.

Effect: Non-compliance with Kentucky Department of Education Redbook policies/requirements.

Recommendation: We recommend the District require annual training for all bookkeepers and principals on the Redbook issued by the Kentucky Department of Education.

Management's Response: We have been hosting semi-annual Redbook trainings which review the entire Redbook and the prescribed forms. Throughout the year, we host numerous additional Redbook trainings directly focused on bookkeeper job requirements and the legal basis for our procedures. Our schools still are challenged to maintain a strict adherence to the law in a vibrant school environment and with some turnover at all levels. We do not accept this as a justification, however, and will continue to use a combination of training and both Internal Audit and our external CPA firm audits to identify schools that may struggle with the Redbook. We will ensure that this feedback is available for consideration of Internal Audit and their risk-based audit plan.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

V.   Technology

Item 2015-11 – IT Organization

Condition & Criteria: The District has recently undergone a major reorganization which resulted in the IT functions of the District being split into two groups: Management Information Services ("MIS") and Digital Technology ("DT").

Cause: These two groups must work together to complete projects, address issues and outages and plan strategic initiatives.

Effect: The current organizational structure is not helpful in creating a collaborative working relationship. The two groups are not located in the same building and rarely meet in person.

Recommendation: We recommend that MIS and DT managers and team leads meet weekly in person to work on common open tickets and pending projects, document processes and policies, implement tools and performance measures, and work with KDE on technology planning and strategy together. We also recommend team building sessions to foster more positive relationships.

Management's Response: MIS and Digital Technology were merged into a single IT department effective July 2015. The organizational chart provided during the audit reflects the realignment of staffing resources under three broad service groups: Infrastructure Services, Technology Support Services, and Systems Development Services. This re-organization has resulted in seamless communications regarding data, telephony and support services, and addressed the operational issues faced by the previous structure consisting of MIS and Digital Technology.

Item 2015-12 – KDE Communication

Condition & Criteria: The Kentucky Department of Education ("KDE") provides tools and services available to districts to communicate status of network and obtain support for network issues.

Cause: The District currently provides a list of contacts that Kentucky Education Technology System ("KETS") uses to send e-mail updates and alerts.

Effect: The District is currently using the toll-free number for KETS help desk, but does not use the KETS alert site (http://ketsalert.kyschools.us or the KETS Remedy site to check for status.

Recommendation: We recommend that the MIS and DT staff use the KETS alerts site and the KETS Remedy site to obtain status on network issues and to share this information with District users. In addition, the users on the KETS contact list for the District should be expanded to include all managers on MIS and DT as well as the COO and STC Coordinator.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Management's Response: The IT staff subscribe to the mobile app provided by KDE to receive alerts. In addition, KDE has formalized the communication process to where emails concerning issues are now sent to a CIO distribution group in which division heads in Operations are included. The same communication is further propagated by Exchange rules to insure all IT groups as well as Computer Education Support are informed at the same time. IT has also established a good working partnership with KDE and adheres to the KDE requirements for creating service tickets via the KDE service desk. The two-way feedback loop closes many of the previously persistent communication gaps.

Item 2015-13 – IT Tools

Condition & Criteria: The District has installed new hardware and software which can be managed using tools provided by the related vendors (Microsoft SCOM, Brocade, Falconstor, Avaya, Fortigate).

Cause: These tools allow IT staff to observe the status of systems, perform troubleshooting and maintenance and make changes to systems if authorized. These tools must be configured to work properly and staff must be trained to use them.

Effect: Underutilization of resources.

Recommendation: Scheduling implementation and training time with major vendors to complete the configuration of these tools and provide staff training would be beneficial to the IT staff. In addition, appropriate access to these tools should be granted to all IT staff to allow for collaboration and reduce lag time for issue resolution.

Management's Response: IT has recently implemented Solar Winds as an all-encompassing monitoring tool for the network. A systematic process is being used to incorporate all critical network devices including servers, load balancers, switches etc. into Solar Winds so that alerting and reporting of information is seamless and timely. This will allow the district to migrate off WhatsUpGold which was being used as a monitoring solution.

Vendor-specific management tools will continue to be used to manage relevant devices and to conduct in-depth troubleshooting. The recent re-organization has allowed the district to place staffing resources in strategic positions to make sure the monitoring, troubleshooting, and servicing of critical infrastructure components is made possible.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Item 2015-14 – Technology Planning and Strategy

Condition & Criteria: The District has a number of issues to resolve in the near future including:

- Active directory self-management
- Munis cloud
- Network devices out of warranty
- Internet connectivity and bandwidth requirements
- Desktop refresh in schools

Cause: The current District Technology Plan is dependent upon the KDE and KETS plan for approval and implementation. Communication between the District and KDE regarding these matters has been problematic in the past, and several of the technology items in this letter are pending resolution of a KDE project.

Effect: District administration has taken steps to work with KDE; however, the risks associated with not finding an appropriate solution to these issues remain, and include the inability to provide adequate, reliable, and secure technology services to students, teachers, staff, and other stakeholders.

Recommendation: Coordination and planning between the District and KDE needs to be prioritized to complete these needed projects timely.

Management's Response: The district is working closely with KDE on all of the aforementioned matters. The recent KDE initiatives have resulted in enhanced bandwidth for the district (10 Gb) as well as new content filter solution. The district also holds leadership meetings with KDE to discuss initiatives, and is an active member of many KDE technology committees.

The district is working with Tyler Technologies on the feasibility of migrating MUNIS to the cloud along with its custom Time and Attendance solution. Given the size of the implementation, and the many optional MUNIS components being used by the district, the cloud migration presents significant challenges that calls for careful planning and cost evaluation. The district will continue its efforts to host MUNIS in the cloud.

The recent network and the ongoing voice upgrade projects have addressed the device warranty issues stemming from the legacy voice and data infrastructure. New solutions like Virtual Desktop Infrastructure (VDI) and the enhanced KETS offers of assistance have allowed the district to refresh and usher new desktop delivery technologies to the schools.

In addition, a new account provisioning system has been developed and implemented to provision accounts in Active Directory and to promote users to various distribution lists. As part of this roll-out, a password self-service application has been released to assist staff in resetting their domain passwords. This has significantly alleviated some of the previous bottlenecks associated with account provisioning, notification and password reset processes.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Item 2015-15 – Network Devices

Condition & Criteria: The District has a network with a large number of switches and devices to manage connectivity to the Internet as well as connectivity between KDE, District Administration, and the schools. The equipment currently in place is either not under warranty or is at/or approaching vendor end-of-life warranty, and is no longer going to be supported with firmware updates and maintenance agreements.

Cause: The District currently has no documented plan to replace these devices prior to the expiration of support.

Effect: Lack of support and firmware upgrades could result in downtime, data breaches, and failure to prevent attacks on the network.

Recommendation: We recommend the District develop and implement a plan for replacement of network devices with equipment that is supported and will meet District needs.

Management's Response: The recently completed network upgrade has addressed this deficiency. The ongoing voice upgrade, once completed, will deprecate the legacy voice system, and will utilize the upgraded network infrastructure to deliver voice services.

Item 2015-16 – Business Continuity Plan

Condition & Criteria: While the District has made some arrangements for continuity of Munis and Infinite Campus processing in case of disaster, certain technology systems, including telephony, internet, and student information systems are not covered by a formal Business Continuity Plan.

Cause: A major disaster could cause loss of data and operational downtime.

Effect: If a major disaster occurs, the District does not have a plan for how to continue business as usual.

Recommendation: The District should consider the development of a comprehensive Business Continuity Plan for critical business functions. The District should consider a formal Risk Assessment which will identify all critical systems and functions. The Business Continuity Plan will be driven from the results of the Risk Assessment. This plan should include not only MIS but also key accounting and business functions that are required to continue in operation.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Management's Response: The district is presently upgrading its voice infrastructure and migrating to a VoIP system. Failover solutions are being evaluated to insure redundancy, and the same will be implemented following the voice upgrade.

The district has a DR plan with Tyler Technologies, and is also actively pursuing a secure VPN solution in an effort to establish the necessary foundation for off-site backup. Previously, the district was storing the Symantec Enterprise backup (now called Veritas) catalogs (which included MUNIS backups) in the AT&T cloud for redundancy, but the same had to be abandoned following some unresolved technical issues with AT&T.

Infinite Campus has built-in DR/BC as part of the contract with KDE that allows district to use their data center in the event of local emergencies. Campus takes a nightly backup of the JCPS implementation of its student information system.

IT has procured and submitted a gap analysis proposal from an independent DR/BC consulting agency, to its upper management. The gap analysis would be a pre cursor to our DR and BC plans and would insure that these plans are able to address the core needs of the district. Such a plan would also include relevant backup services for the network. Presently, the gap analysis proposal is awaiting approval and funding from upper management.

Item 2015-17 – Domain Administrator Accounts

Condition & Criteria: The District currently has several user accounts that have Domain Administrator privileges. These users use this account to sign onto their PC's to do their daily work.

Cause: This was apparently done to make it more convenient for administrators to sign in.

Effect: If a virus, spyware, or malware is installed on their PC, the infection could be spread across the entire network.

Recommendation: We recommend the District to create a second account without Domain Administrator rights to be used to sign into the PC.

Management's Response: KDE retains the domain administrator privileges because of the current design of the Active Directory. JCPS has a limited delegated authority to allow for management of its domain.

The JCPS IT Infrastructure Services Group continues to evaluate and re-design the various privileged accounts and groups in AD to insure only essential personnel have membership in such groups. Further, the Hyper-V virtualization initiative has resulted in fewer personnel needing access to the domain due to server resources being virtualized, thereby mitigating damage in the event of a malware/spyware. Anti-Virus signature and Windows updates are also being closely and regularly monitored to insure devices on the network have the necessary updates.

KDE is actively pursuing an AD re-design with Microsoft, and the solution would use Azure services. Once completed, the districts would be able to better manage their domains.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Item 2015-18 – Password Expiration

Condition & Criteria: The District currently does not force user passwords to expire when logging into the Domain.

Cause: There is no policy in effect to enforce password changes.

Effect: Unauthorized users could gain access to the system.

Recommendation: We recommend that the District establish a policy to require user passwords to expire.

Management's Response: IT has already implemented a 90-day password expiration policy and all staff accounts are subject to this policy. Password complexity and re-use rules are also part of this policy to insure its efficacy.

Item 2015-19 – Mobile Device Management

Condition & Criteria: JCPS IT staff has requests from teachers, staff and students which require deployment and management of thousands of various devices including Chromebooks, iPads/iPhones, Windows and Android phones and tablets.

Cause: Currently, the District has no mobile device management system to provision, track and securely manage these devices to allow network access. Several vendor quotes were obtained however funding has not been allocated.

Effect: Delays in provisioning new mobile devices, misconfiguration of new or current devices and failure to properly manage current devices that are lost/stolen can cause loss of data, system availability and security issues.

Recommendation: We recommend that IT management provide senior management with several proposals for mobile device management including an overview of the risks and threats to the District if a solution is not implemented.

Management's Response: The IT team, along with its counterparts in Computer Education Support (CES), evaluated several Mobile Device Management (MDM) products recently. The committee also identified the solution that best meets our needs. The procurement of mobile devices like IPads is largely done by individual cost centers that use various funding sources for the same. An MDM solution requires annual per-device maintenance. We reviewed our recommendation, the associated costs, and the staffing requirements to implement this with senior management and determined that the district does not have the funds to continue paying for ongoing per-device maintenance especially since there exists no mechanism to offload such maintenance costs to the schools at this time. The costing model quickly made any MDM solution unsustainable for the district. However, the district worked closely with Apple and has been able to decentralize the management of these devices using Apple Configurator, a free utility from Apple, that allows a school to tightly control and manage their devices. Other devices like Chromebooks are still being evaluated for their Enterprise-worthiness including management options for the same. We are continuing to review the matter as devices and capabilities evolve.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Item 2015-20 – Staffing and Support for New Technology Rollouts

Condition & Criteria: JCPS recently implemented several large scale projects which impact the entire district:

- Voice over IP (Windstream/Shoretel)
- 1 to 1 Wireless (Avaya)
- SolarWinds Network Monitoring
- LanDesk helpdesk
- Facilities Access System
- New Network Switches (Avaya – 2013/14)

Current staff are working on these added projects as well as maintaining their daily full-time responsibilities.

Cause: Large scale projects have high risk for failure without proper staffing and training.

Effect: Failures in systems could cause outages and loss of data. In addition, lack of proper staffing could result in projects going over budget or implementation delays.

Recommendation: We recommend that management ensure that each new technology is given proper training for IT staff and end users, and has proper support from IT staff and vendors.

Management's Response: Training has either been scheduled or has already taken place for each of the above cited initiatives. Training for Shortel, 1 to 1 wireless (Extreme Networks, not Avaya), and SolarWinds has already taken place. Training for LANDesk is scheduled for later this month. The Access System training (Gallagher) is ongoing, and staff from electronic maintenance and IT have been trained in the configuration and management of this solution. Refresher training is being made available where needed.

Item 2015-21 – Oversight of Application Development

Condition & Criteria: JCPS IT staff utilizes several tools to enable IT Application Development including Microsoft Team Foundation Server and Build Master. These tools allow IT staff to manage code and move code into production. The current list of users does not include the director or manager of the IT Application Development teams.

Cause: The current list of users does not include the director or manager of the IT Application Development teams.

Effect: Lack of oversight by management could result in unauthorized or poorly designed code to be moved into production.

Recommendation: We recommend that a manager or director be granted access to these tools to enable them to perform oversight functions and backup functions if necessary. They should be trained to use the system to be able to conduct these functions and in case of disaster, be able to perform recovery functions if necessary.

Current Year Comments and Management Responses--Continued

JCBOE FY15 Audit

June 30, 2015

Management's Response: The software development team employs the highly effective Scrum-Kanban hybrid methodology for software development. This, coupled with the organization of the entire development staff into teams lead by Enterprise Architects, has afforded us with a very effective management oversight into the entire process from start to finish. As part of this process, each morning, the Assistant Director Systems Development conducts stand up meetings with each team to go over the work done on the previous day, work scheduled for the day, and discusses issues surrounding previous day's work. In addition, the Assistant Director holds weekly sprint meetings with the Enterprise Architects where the next set of deliverables and tasks for each team are discussed and finalized. All of this information in input into the Team Foundation Server (TFS), and the same is reviewed on an electronic Kanban board during the standup meetings. In addition, the Assistant Director assigns tickets to the entire team on a daily basis. This methodology has allowed us to gain unprecedented insight into the health and status of all software development projects, and has allowed the Assistant Director to employ measures to mitigate issues before they become a problem. The Enterprise Architects closely monitor the code deployment in BuildMaster, and all source code promoted by BuildMaster is audited automatically, with the audit trail clearly recording who deployed the code, and when.

In addition, the Database Administrators have created a robust backup schedule for the TFS and the same includes daily and weekly backups which essentially insure fine-grained recoverability in the event of problems. The experienced DBAs have full control of the backups and have successfully demonstrated their capability to recover databases. They are also certified in the SQL Server administration.

Prior Year Comments and Management Responses

JCBOE FY15 Audit

VI.   <u>Financial Reporting</u>

Item 2014-1 – Proper Inclusion of Component Units

Condition & Criteria: Management believes the Jefferson County Public Education Foundation to be a component unit and it is not included in the District's financial statements.

Cause: The information necessary to properly include the Foundation has not been available by the date needed for inclusion.

Effect: This component unit is not included in the District's financial statements

Recommendation: We recommend that management engage and complete in a timely manner the audit of the component unit so that it can be properly included in the financial statements.

Management's Response: We have tried to get the audited financial statements of the Jefferson County Public Education Foundation by the deadline for a number of years. We will continue to ask for them, but they are a separate entity with their own audit schedules.

Current Status: See 2015-1

VII.   <u>Accounts Payable</u>

Item 2014-2 – Segregation of Duties

Condition & Criteria: There are accounts payable clerks that have the ability to set up and edit vendor information, including EFT information, as well as process invoices.

Cause: There are no controls in place that allow for proper segregation of duties.

Effect: Clerks could potentially enter fraudulent invoices for payment.

Recommendation: We recommend that segregation of duties be implemented as much as administratively possible. When not possible, we recommend an alternate review, such as a vendor audit, be performed.

Management's Response: We continue to restrict the additional duties of the clerk assigned to vendor file maintenance; however, eliminating all conflicting duties would cause the position to be less than full-time. As compensating controls, we continue to perform reviews of her vendor file changes and her invoices processed throughout the year.

Current Status: See 2015-2

Prior Year Comments and Management Responses--Continued

JCBOE FY15 Audit

VIII. Personnel

Item 2014-3 – Terminated Employees not Reported in Board Minutes

Condition & Criteria: District policies require all terminated employees to be included in Board minutes.

Cause: One out of the twenty-five terminated employees selected for testing was not noted as terminated in the Board minutes.

Effect: District policy was not followed.

Recommendation: We recommend that management emphasize to all employees the importance of following District policies.

Management's Response: This has been addressed and procedures have been put in place to prevent this occurrence.

Current Status: Not noted as an issue for the current year.

Item 2014-4 – Terminated Employees Paid After Termination Date

Condition & Criteria: District policies require all terminated employees to be included in Board minutes.

Cause: One out of the forty terminated employees selected for testing was not updated as terminated in the Board minutes.

Effect: District policy was not followed.

Recommendation: We recommend that management emphasize to all employees the importance of following District policies.

Management's Response: This has been addressed and procedures have been put in place to prevent this occurrence.

Current Status: Not noted as an issue for the current year.

Prior Year Comments and Management Responses--Continued

JCBOE FY15 Audit

    Item 2014-5 – New Hires not reported in Board Minutes

    Condition & Criteria: District policies require all new hires to be included in Board minutes.

    Cause: Four of forty new hires selected for testing were not reported in Board minutes until September 8, 2014, when we brought it to the attention of Human Resources personnel in charge of including new hires in the Board minutes.

    Effect: District policy was not followed.

    Recommendation: We recommend that Human Resources personnel ensure that new hires are properly communicated so they are reported in the Board minutes as required by District policy.

    Management's Response: This has been addressed and procedures have been put in place to prevent this occurrence.

    Current Status: Not noted as an issue for the current year.

IX.   <u>**Capital Assets**</u>

    Item 2014-6 – Capital Assets Not Recorded When Acquired

    Condition & Criteria: The objective of the Property Records Unit is to furnish and maintain an accurate inventory of capital assets for each cost center of the District. Property auditors are finding assets that are not accounted for.

    Cause: Individual schools are failing to report to property auditors the acquisition of capital assets through school activity funds or by donation.

    Effect: All capital assets held are not properly recorded and tracked.

    Recommendation: Schools should communicate to property auditors whenever they acquire potential capital assets that would not be included on a Purchase Order.

    Management's Response: Property auditors will provide principals a post inventory New-Found items list, and remind them to properly fill out the "Procedures for Accepting Donations and Gifts" form which is District policy. Also, school staff will be instructed to notify auditors of any capital assets purchased through activity funds for proper inventory identification.

    Current Status: See 2015-3

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Item 2014-7 – Schools Response to Capital Asset Inventory Count Findings

Condition & Criteria: After inventory of capital assets is completed for a cost center, the cost center head will receive a copy of the findings. Based on District procedures, the cost center has two weeks to reply to this report and explain where missing capital assets are. In certain instances, capital assets marked as missing will remain in the system for a long period of time as the property auditors do not have the necessary supporting documentation to remove them from the inventory records.

Cause: Not all cost center heads reply to the property auditors regarding the missing capital assets report provided during the inventory counts.

Effect: Cost centers heads are not assuming their responsibility to account for missing capital assets, which can result in misappropriation of capital assets going undetected and overstatement of assets.

Recommendation: The District should ensure that cost center heads respond to the property auditor's missing audit report in a timely fashion by appointing some with higher authority to hold the cost center heads accountable for the missing capital assets.

Management's Response: Completed inventories will require a post inventory meeting with the principal or designee. A printout will indicate new found items, and assets not located. The principal will initiate an immediate search for missing assets, and produce forms indicating new found items have been donated or purchased with school funds. The school will have two weeks to respond. If there is not a response, possible involvement of the CFO or Assistant Superintendent may be necessary for resolution.

Current Status: See 2015-4

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Item 2014-8 – Depreciation Expense Calculated Improperly

Condition & Criteria: Employees of the District record the acquisition of capital assets based on the invoice date and calculate depreciation for the entire month in which it was acquired and the remaining months during the year. During our capital assets additions testing, we noted that depreciation expense for one item was not calculated properly.

Cause: Per the capital asset additions report generated from MUNIS, asset #214820's first depreciation period was 6 (December), however the asset was acquired in November so the first depreciation period should have been 5.

Effect: Depreciation expense was misstated. The misstatement found is not significant; however, if the miscalculation is the result of a glitch in the MUNIS system, it could result in a material misstatement.

Recommendation: The District should ensure that depreciation is calculated correctly with the capital asset software to avoid misstatements.

Management's Response: In this situation, a clerical error resulted in one asset being depreciated approximately $22 less than was correct. We have discussed the matter with the staff person and feel that it will not happen again.

Current Status: Not noted as an issue for the current year.

Prior Year Comments and Management Responses--Continued

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X.   Other Items

Item 2014-9 – Expense Budgeting

Condition & Criteria: Accounting staff of the District prepare a budget for the year which is approved by the Board. One instance was found where the budget of a supplies expense was much larger than the actual expenses for the fiscal year. This has been the trend for this specific account over the last three years.

Cause: Historically, this account is budgeted high in anticipation of possible needs. The personnel in charge of creating the budget are not taking into consideration historical data.

Effect: By budgeting accounts too high, available funds are not being allocated to meet other needs of the District.

Recommendation: We recommend that budget preparers take into consideration the historical data and determine whether the amounts budgeted are reasonable in order to better prepare for the year and spend funds more efficiently.

Management's Response: Through this audit, we have become aware of inconsistencies with how some smaller proprietary funds are budgeted, where projected ending fund balance is budgeted into a supplies code rather than in a contingency code like General Fund or School Food Services. We will standardize these funds.

Current Status: See 2015-7

Item 2014-10 – Reporting of State and Local Grants

Condition & Criteria: Certain state and local grants received by the District during the fiscal year require the submission of quarterly reports. During our testing, we noted that the District was not in compliance with these reporting requirements for two grants tested.

Cause: Quarterly reports were submitted after the due date stipulated in the grant agreement.

Effect: The District could loss grant funds due to noncompliance with reporting requirements.

Recommendation: The District should ensure that reports are submitted on or prior to the due date specified in the grant agreement or obtain a waiver from the state or local government on the reporting requirement.

Management's Response: We have been challenged with a personnel matter and a staff member approaching retirement which resulted in missing the filing deadlines in four reports. This is not acceptable. We have implemented changes that will prevent these occurrences in the future. Specifically, report submission deadlines in our notification system have been moved up to the week before the due date, and a staff member has been assigned to ensure compliance.

Current Status: See 2015-8

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Item 2014-11 – Collection of Tax Revenues

Condition & Criteria: Per KRS 160.500 - .510, the Sheriff or other property tax collector is not to deduct his fees from the taxes collected. Currently, the Sheriff is deducting his fee prior to remitting funds to the District.

Cause: Tax revenues are remitted daily by the Sheriff as a convenience to the District. The fees are only required to be remitted monthly. Because the taxes are remitted on a daily basis, the Sheriff withholds his fee from the remittance.

Effect: Non-compliance with Kentucky Revised Statues.

Recommendation: This issue should be discussed/negotiated between the District, KDE and the Sheriff's Office.

Management's Response: Daily submission of tax revenues, which is not required by law, is a great benefit to the District, especially during November, since the property tax receipts mark the end of the period of negative cash flows. We are currently working on legislation to change this law.

Current Status: See 2015-9

Item 2014-12 – School Activity Funds

Condition & Criteria: Kentucky Department of Education requires all Kentucky schools to follow the Redbook in accounting for School Activity Funds. Currently, many schools are not properly following the policies/requirements of the Redbook when accounting for the various activities of the school.

Cause: Redbook policies/requirements were not followed by bookkeepers/principals in accounting for the various activities at the school in areas such as multiple receipt forms, ticket sales, invoice approval, and transfers.

Effect: Non-compliance with Kentucky Department of Education Redbook policies/requirements.

Recommendation: We recommend the District require annual training for all bookkeepers and principals on the Redbook issued by the Kentucky Department of Education.

Management's Response: We are aware that the new Redbook brought many changes that the District, and other Kentucky school districts, have struggled to implement. To that end, we have conducted five training sessions for school staff and one mandatory session for all Principals. In addition, we are updating our audit treatment of non-compliances to ensure that we consistently follow the law. We are planning a new round of training sessions for the 2014-2015 school year as a refresher or for new staff.

Current Status: See 2015-10

JCBOE FY15 Audit

XI. <u>Internal Audit</u>

Item 2014–13 – Maintain Independence of Internal Audit Function

Condition & Criteria: Internal Audit Department must be independent in its actions which means it should report functionally to the District and administratively to the Superintendent or her designee.

Cause: Internal Audit personnel currently report directly to the Director of Accounting.

Effect: Independence has been impaired.

Recommendation: We recommend that Internal Audit personnel report directly to the Board due to the fact that an Internal Audit department is supposed to be an independent function of the audited entity.

Management's Response: We agree with the importance of both a proper Internal Audit function and the role independence plays in their operation. We are in a temporary position of revamping the department after half the department retired and previous management letters indicated that improvements were needed. As a result, we have asked the Director of Accounting to manage the daily operations and begin the change process while we implement best practices for the District. Although it is an independence impairment for Internal Audit to report temporarily to the Director of Accounting, we have ensured that the Internal Auditors understand that they still report to the Superintendent and that both the Superintendent and Board are available to them whenever they feel it is necessary.

Current Status: The Board hired Dean Dorton as the outsourced Internal Audit function in January 2015. Representatives from Dean Dorton meet periodically with the Board on their projects.

Prior Year Comments and Management Responses--Continued

JCBOE FY15 Audit

Item 2014–14 – Audit Plan for Internal Audit Department Should Be Developed

Condition & Criteria: It was noted that the Internal Audit Department did not have a formal Audit Plan in place during the period of our audit.

Cause: Management and other responsible users of Internal Audit projects do not request an annual audit plan be prepared and submitted for prior review and approval.

Effect: Improper usage of Internal Audit Department dilutes its effectiveness.

Recommendation: We recommend that Internal Audit Department perform a risk assessment and develop an audit plan for each fiscal year based on the risk assessment. At the end of each fiscal year, the Director of Internal Audit should report to the Board the projects that were completed during the fiscal year, projects scheduled but not completed due to various circumstances, and the plan for the upcoming fiscal year. This plan should include such items as:

- Audits of the School Activity Funds for the 155 schools within the District
- Operational reviews of internal processes throughout the District
- Control Testing of Cash Receipts, Cash Disbursements, Payroll, Capital Assets, Terminations, New Hires and Transfers which are external audit requirements

Subsequent to June 30, 2014, we have been advised that management of the District has performed an initial risk assessment and developed a tentative audit plan to be implemented at a future date subject to Board review.

Management's Response: We agree with the importance of risk-based audits and have implemented this recommendation for the 2014-2015 school year.

Current Status: The Board hired Dean Dorton as the outsourced Internal Audit function in January 2015. Internal Audit Plan was reviewed and approved by the Board in July 2015.

Prior Year Comments and Management Responses--Continued

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XII. <u>Technology</u>

Item 2014-15 – IT Organization

Condition & Criteria: The District has recently undergone a major reorganization which resulted in the IT functions of the District being split into two groups: Management Information Services ("MIS") and Digital Technology ("DT").

Cause: These two groups must work together to complete projects, address issues and outages and plan strategic initiatives.

Effect: The current organizational structure is not helpful in creating a collaborative working relationship. The two groups are not located in the same building and rarely meet in person.

Recommendation: We recommend that MIS and DT managers and team leads meet weekly in person to work on common open tickets and pending projects, document processes and policies, implement tools and performance measures, and work with KDE on technology planning and strategy together. We also recommend team building sessions to foster more positive relationships.

Management's Response: Management Information Systems and Digital Technology conduct bi-weekly joint meetings to bridge the proximity gap. Ongoing projects and priorities are discussed and appropriate collaborations are initiated during these meetings. In addition, periodic meetings are held between sub groups of relevant staff to address project-specific issues.

Current Status: See 2015-11

Item 2014-16 – KDE Communication

Condition & Criteria: The Kentucky Department of Education ("KDE") provides tools and services available to districts to communicate status of network and obtain support for network issues.

Cause: The District currently provides a list of contacts that Kentucky Education Technology System ("KETS") uses to send e-mail updates and alerts.

Effect: The District is currently using the toll-free number for KETS help desk, but does not use the KETS alert site (http://ketsalert.kyschools.us or the KETS Remedy site to check for status.

Recommendation: We recommend that the MIS and DT staff use the KETS alerts site and the KETS Remedy site to obtain status on network issues and to share this information with District users. In addition, the users on the KETS contact list for the District should be expanded to include all managers on MIS and DT as well as the COO and STC Coordinator.

Management's Response: KDE has set up alerts that several team members in IT receive. These are disseminated internally to other District staff, as appropriate. The District actively uses the KDE helpdesk to address email, Active Directory, and other issues.

Current Status: See 2015-12

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Item 2014-17 – IT Tools

Condition & Criteria: The District has installed new hardware and software which can be managed using tools provided by the related vendors (Microsoft SCOM, Brocade, Falconstor, Avaya, Fortigate).

Cause: These tools allow IT staff to observe the status of systems, perform troubleshooting and maintenance and make changes to systems if authorized. These tools must be configured to work properly and staff must be trained to use them.

Effect: Underutilization of resources.

Recommendation: Scheduling implementation and training time with major vendors to complete the configuration of these tools and provide staff training would be beneficial to the IT staff. In addition, appropriate access to these tools should be granted to all IT staff to allow for collaboration and reduce lag time for issue resolution.

Management's Response: The District's IT is working towards establishing a common monitoring platform to include all network devices. WhatsUpGold ("WUG") is being implemented at the datacenter. We will study the feasibility of extending its use for all monitoring. This will include alerts which will be disseminated to both team members, as well as dashboards that can be utilized by end users. Staff training for WUG was recently completed. WUG will replace SCOM. In addition, District IT utilizes the appropriate vendor-specific tools to manage the devices under their purview.

Current Status: See 2015-13

Item 2014-18 – Technology Planning and Strategy

Condition & Criteria: The District has a number of issues to resolve in the near future including:

- Active directory self-management
- Munis cloud
- Network devices out of warranty
- Internet connectivity and bandwidth requirements
- Desktop refresh in schools

Cause: The current District Technology Plan is dependent upon the KDE and KETS plan for approval and implementation. Communication between the District and KDE regarding these matters has been problematic in the past, and several of the technology items in this letter are pending resolution of a KDE project.

Effect: District administration has taken steps to work with KDE; however, the risks associated with not finding an appropriate solution to these issues remain, and include the inability to provide adequate, reliable, and secure technology services to students, teachers, staff, and other stakeholders.

Recommendation: Coordination and planning between the District and KDE needs to be prioritized to complete these needed projects timely.

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Management's Response: KDE has increased the bandwidth available for JCPS, which now stands at 10Gb. KDE is upgrading its firewall to accommodate the increased traffic. This has allowed the District to increase wireless coverage throughout the District.

District IT is also working closely with schools and other stakeholders on a mobile devise management ("MDM") initiative that will allow for centralized management of Disrict-owned mobile devices.

The District actively participates in the periodic KDE broadcasts to schools as well as monthly meetings chaired by the KDE liaison, Mr. Lee Muncy.

The data network has been upgraded with new equipment.

The District is working closely with Tyler to address performance issues as well as product issues with MUNIS, on an ongoing basis. The District has determined that the best implementation for the interim is to run MUNIS on premise. Several optimizations in the product as well as the supporting infrastructure must be in place before the District can consider migrating to the cloud. In addition, the District is also evaluating options to procure backup Internet connectivity and evaluating failover options to insure a cloud migration would be successful. These measures are critical considering the size and complexity of our operations. In addition, the District is taking part in the MUNS early adopter program.

KDE is actively working with Microsoft on a cloud-based Active Directory implementation. This project requires several changes to KDE's current implementation of the AD forest. Once completed, the new implementation will provide more flexibility to the District.

KDE has announced a new 10-year KETS offer-of-assistance with elevated technology funding. The District IT is also investigating the use of desktop virtualization technologies. Together, we are posed to enhance technology at schools while lowering our operating costs and increasing availability of technology to schools.

Current Status: See 2015-14

Prior Year Comments and Management Responses--Continued

JCBOE FY15 Audit

Item 2014-19 – Network Devices

Condition & Criteria: The District has a network with a large number of switches and devices to manage connectivity to the Internet as well as connectivity between KDE, Board Administration, and the schools. The equipment currently in place is either not under warranty or is at/or approaching vendor end-of-life warranty, and is no longer going to be supported with firmware updates and maintenance agreements.

Cause: The District currently has no documented plan to replace these devices prior to the expiration of support.

Effect: Lack of support and firmware upgrades could result in downtime, data breaches, and failure to prevent attacks on the network.

Recommendation: We recommend the District develop and implement a plan for replacement of network devices with equipment that is supported and will meet District needs.

Management's Response: The District data network was recently upgraded with new equipment including the network core. The District IT is also embarking on a new voice project to overhaul the voice network.

Current Status: See 2015-15

Item 2014-20 – Business Continuity Plan

Condition & Criteria: While the District has made some arrangements for continuity of Munis and Infinite Campus processing in case of disaster, certain technology systems, including telephony, internet, and student information systems are not covered by a formal Business Continuity Plan.

Cause: A major disaster could cause loss of data and operational downtime.

Effect: If a major disaster occurs, the District does not have a plan for how to continue business as usual.

Recommendation: The District should consider the development of a comprehensive Business Continuity Plan for critical business functions. The District should consider a formal Risk Assessment which will identify all critical systems and functions. The Business Continuity Plan will be driven from the results of the Risk Assessment. This plan should include not only MIS but also key accounting and business functions that are required to continue in operation.

Management's Response: Following the state audit, The District IT has worked with Dell on a gap analysis and risk assessment initiative to identify the processes, systems, and personnel for DR/BC planning. This analysis will aid the District in its DR/BC efforts.

Current Status: See 2015-16

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Item 2014-21 – Domain Administrator Accounts

Condition & Criteria: The District currently has several user accounts that have Domain Administrator privileges. These users use this account to sign onto their PC's to do their daily work.

Cause: This was apparently done to make it more convenient for administrators to sign in.

Effect: If a virus, spyware, or malware is installed on their PC, the infection could be spread across the entire network.

Recommendation: We recommend the District create a second account without Domain Administrator rights to be used to sign into the PC.

Management's Response: The District's IT has elevated rights in the domain via a delegation model whereas KDE is the domain administrator for all districts, by design. We are actively evaluating all security groups in our domain to insure that they are business-needs-driven and further, membership to such groups is based on need and not by default. This, combined with the password expiration policy, will enhance our internal network security. It should also be noted that the District utilizes content filter appliances to further improve security.

Current Status: See 2015-17

Item 2014-22 – Password Expiration

Condition & Criteria: The District currently does not force user passwords to expire when logging into the Domain.

Cause: There is no policy in effect to enforce password changes.

Effect: Unauthorized users could gain access to the system.

Recommendation: We recommend that the District establish a policy to require user passwords to expire.

Management's Response: the District has created a password expiration policy and is actively implementing the same across the District.

Current Status: See 2015-18